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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,071	10/09/2001	Joerg Giesler	658/49678CO	7493
7590	03/10/2004		EXAMINER	
CROWELL & MORING, L.L.P.			SOOHOO, TONY GLEN	
P.O. Box 14300			ART UNIT	PAPER NUMBER
Washington, DC 20044-4300			1723	

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No.		Applicant(s)	
	09/819,071		GIESLER ET AL.	
	Examiner		Art Unit	
	Tony G Soohoo		1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 10-12, 14, 16, 17, 19-21, 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 15, 18, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 13 October 2000. ***Election/Restrictions***
2. Applicant's election of species Figure 1 in Paper No. 12-6-2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-9, 13, 15, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the pumping medium" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.
5. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and

Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 1-9, 13, 15; and claim 7 recites the broad recitation "elastomeric media" or the range 2 to 10 (claim 7); "less than 5" (claim 6); between 1:2 to 1:5 (claim 8), and the claim also recites "in particular caoutchouc" or the particular value 8; the value 3 times; the value 1:4 in the same claim which is the narrower statement of the range/limitation as recited in the same claim.

6. Claim 15 provides for the use of the apparatus of claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 7 and 15; 18 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 1579001 (DE '001, also FR 1494681, same patent family).

The DE '001 teaches a system comprising a gear pump 27, 28, and a screw type extruder for delivering elastomeric material, comprising a screw 4, a screw casing 1,3, the screw-type extruder being arranged in front of the gear pump 27, 28, viewed in the delivery of direction of the pumping medium whereby the extruder is located upstream of the gear pump, characterized in that the screw casing 1, 3 has a conical part as seen in the forward portion of the casing from the hopper 5 in the direction of the flow of material to the gear pumps, and the screw 4 has at least one tapering in the area of the conical part of the housing, and that the screw 4 is axially displaceable in the screw casing 1,3 which may produce a controlled feeding of pressure of fed material into the gear pump.

With regards to claim 2 note that the taper is on the gear-pump-side end of the screw extruder 4 as opposed to the hopper end 5.

With regards to claim 3 not that the taper of the screw increased as viewed in the delivery direction of the material so that it tapers to a smaller section.

With regards to claim 7 note a cylindrical section at the nozzle 2, or the cylindrical section adjacent at the hopper 8, or the piston section 6.

With regards to claim 15 note that heat and pressure processing of plastics material provides a transport and processing of an elastomeric material

With regards to claim 23, note that the control of the exit gap would also control and vary and control the pressure energy as it leaves the extruder and enters the gear pump.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5-6, 8-9, are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 1579001 (DE '001, also FR 1494681, same patent family).

DE '001 discloses all of the recited subject matter as defined within the scope of the claims with the exception of the tangential plane of the screw in the area of the tapering angle is 2-10 or preferably 8; the screw length is less than 5 or is 3 times the diameter of the screw; length of taper part to conical part being 1:2-1:5 or approximately 1:4; or the cone length is less than the screw.

It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 1579001 (DE '001, also FR 1494681, same patent family) in view of Tadmor 5356208 (newly cited).

DE '001 discloses all of the recited subject matter as defined within the scope of the claims with the exception of a 'double helix' screw, twin flight screw.

The reference to Tadmor shows that a screw element for working plastic material may have plural thread flights may be provides upon the screw so as to provide further processing by the screw element.

Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to provide a duplication of the flight helix of the DE '001 to include a second helix as shown by the reference to Tadmor whereby an additional helix may provide additional working of material by the additional flight is a mere duplication of parts. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Allowable Subject Matter

12. Claims 13 and 22 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure was cited previously on PTO 892 in a previous office action. The following discloses screw extruders which feed into a gear pump: Marshall 2767437, Marin 5182066, Ikegami 6468067, Jones et al 4461734, Seta et al 6488490, Shimizu 4890996, Fritsch 3649147, Chu et al 6306323, Groleau 5863485, Gayler 2692405, Gohlisch et al 5304053 and 5378415, Boden 5310256. The following discloses screw extruders which is axially displaceable: Sutter 3595533 and 3552722, Hendry 315681, Koch et al 3876188, Burpulis et al 3865354, Pointon 4907891.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7:00 AM - 5:00 PM, Tues. - Fri..

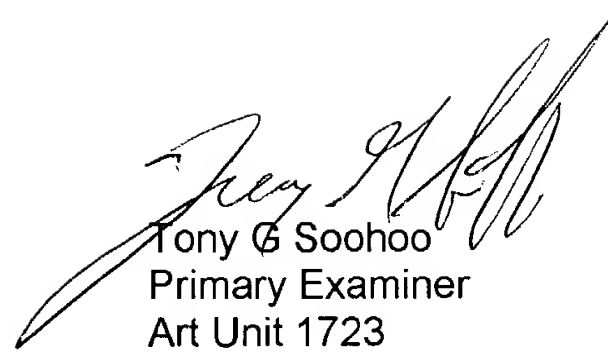
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Tony G Soohoo
Primary Examiner
Art Unit 1723
